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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,918	11/18/2003	Yoshinobu Honkura	245460US0	4019
22850 7590 03/08/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SHEEHAN, JOHN P	
			ART UNIT	PAPER NUMBER
			1742	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/08/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/08/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/714,918

Applicant(s)

HONKURA ET AL.

Examiner

John P. Sheehan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims 14-16 drawn to an invention nonelected with traverse in the paper submitted September 18, 2006. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Specification***

2. The amendment filed December 18, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

I. In Chart 3A, the amendment to the average grain diameter for Sample D1 does not have support in the application as filed. Applicants have cited paragraphs [0133], [0177] and [0178] of the specification as support for this and other amendments. However, none of these cited paragraphs provide support for Sample D1 having an average grain diameter of 35  $\mu\text{m}$ .

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Interpretation***

Throughout the claims applicants use the term "d-HDDR" to describe the first powder (for example see claim 1, lines 3 and 5; and claim 7, line 3). Applicants are advised that the Examiner considers that this term merely describes how the powder was prepared, that is, the process used to prepare the recited powder. Thus, although applicants' claims do not recite all of the process steps used to prepare the claimed product, applicants' claims are considered to be product by process claims. However, the recited process step is not necessarily considered to lend patentability to the claimed product, MPEP 2113.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir.1985).

It is noted that the courts have approved the use of a rejection under 35 USC 102/103 for product by process claims, see MPEP 2113.

"[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section

103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanekiyo et al. (Kanekiyo, US Patent No. 6,814,776) taken in view of Kaneko et al. (Kaneko Japanese Patent No. 2000-003809).

Kanekiyo teaches an iron based rare earth alloy powder that is a mixture of 2 iron base rare earth powders having particle size and aspect ratios that overlap the particle size and aspect ratios recited in the instant claims (column 4, lines 29 to 39).

Kanekiyo's powder composition encompasses the powder composition recited in the instant claims (column 3, lines 46 to 58). Kanekiyo teaches that the powder mixture is used to make resin bonded magnets (column 5, lines 42 to 48 and column 23, line 65 to column 24, line 3).

Kaneko teaches that adding a surfactant to iron based rare earth alloy powder prevents oxidation degradation during kneading and shaping the powder resin mixture (see paragraph 0018 of the machine translation of Kaneko).

The claims and Kanekiyo differ in that Kanekiyo is silent with respect to the use of a surfactant and "d-HDDR" formed powder.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because one of ordinary skill in the art would have been motivated to apply a surfactant to Kanekiyo's iron based rare earth magnet powder so as to reduce oxidation degradation during kneading and shaping the iron based rare earth powder as is taught by Kaneko.

Regarding the "d-HDDR" it is the Examiner's position that as set forth above under the heading, "Claim Interpretation", the Examiner considers that this term merely describes how the powder was prepared, that is, the process used to prepare the recited powder and that this recited process does not necessarily considered to lend patentability to the claimed product, MPEP 2113.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir.1985).

3. Claims 1 to 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satou et al. (Satou, Japanese Patent Document No. 06-132107, cited in the IDS submitted November 18, 2003) taken in view of the combination of Kaneko et al..

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(Kaneko Japanese Patent No. 2000-003809) and Kanekiyo et al. (Kanekiyo '546, US Patent Application Publication 2003/0019546).

Satou teaches an anisotropic bonded magnet comprising a mixture of rare earth magnet powders having a particle size that overlaps the particle sizes recited in the instant claims (Abstract).

Kanekiyo '546 teaches a rare earth magnet powder having an aspect ratio of less than 1 and that such an aspect ratio improves the moldability and flowability of the rare earth magnet powder (page 17, paragraph 0236).

Kaneko teaches that adding a surfactant to iron based rare earth alloy powder prevents oxidation degradation during kneading and shaping the powder resin mixture (see paragraph 0018 of the machine translation of Kaneko).

The claims and Satou differ in that Satou is silent with respect to the use of a surfactant, "d-HDDR" formed powder and the aspect ratio of the rare earth magnet powder .

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because one of ordinary skill in the art would have been motivated to apply a surfactant to Satou's iron based rare earth magnet powder so as to reduce oxidation degradation during kneading and shaping the iron based rare earth powder as is taught by Kaneko.

Regarding the "d-HDDR" it is the Examiner's position that as set forth above under the heading, "Claim Interpretation", the Examiner considers that this term merely describes how the powder was prepared, that is, the process used to prepare the

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recited powder and that this recited process does not necessarily considered to lend patentability to the claimed product, MPEP 2113.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Finally, with respect to the aspect ratio of the rare earth magnet powder it is the Examiner's position that one of ordinary skill in the art would be motivated to employ an aspect ratio of less than 1 so as to improve the moldability and flowability of the rare earth magnet powder as taught by Kanekiyo '546 (page 17, paragraph 0236).

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to



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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1 to 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 to 15 of copending Application No. 10/509,687. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter of these two sets of claims overlaps.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

6. Applicant's arguments filed December 18, 2006 have been fully considered but they are not persuasive.

Applicants, citing "Rare-Earth Iron Permanent Magnets", argue that "d-HDDR" powder has an extremely high sensitivity to fracturing and that the rapid-cooling powders taught by Kanekiyo '776 and Kaneko '809 do not have internal cracks. This is not persuasive. The reference, "Rare-Earth Iron Permanent Magnets", addresses HD powders and HDDR powders but does not discuss d-HDDR powders and thus cannot be relied on to establish the characteristics of d-HDDR powders. Regarding HD powders, "Rare-Earth Iron Permanent Magnets" teaches that the so treated alloys are extremely friable and can easily be reduced to powder and are reduced to powder in the

process of making magnets (pages 350 and Figure 7.13). However, "Rare-Earth Iron Permanent Magnets", is silent as to whether HD powder has internal cracks. Regarding HDDR powders, "Rare-Earth Iron Permanent Magnets" is silent as to whether HDDR powders have internal cracks. Thus, applicants have not established that the d-HDDR powders recited in the instant claims have internal cracks that distinguish the d-HDDR powders from Kanekiyo '776 and Kaneko '809.

Applicants' arguments that Kanekiyo '776 and Kaneko '809 are based on rapid cooling magnetic powder that is not submitted to hydrotreatment, that "the rapid cooling magnetic powder doesn't have an object caused by d-HDDR anisotropic powder, which is a specifically claimed feature of the present invention" and that "the present invention is different from the cited references (Kanekiyo et al. and Kaneko et al. ) on the basis of the magnetic powder used therein" (response, page 15) are not persuasive. Regarding the term, "d-HDDR" used to describe the powders used to make the claimed bonded magnet, it is the Examiner's position that as set forth above under the heading, "Claim Interpretation", the Examiner considers that this term merely describes how the powder was prepared, that is, the process used to prepare the recited powder and that this recited process does not necessarily considered to lend patentability to the claimed product, MPEP 2113.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re*

*Thorpe*, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir.1985).

Further, as discussed in the previous paragraph applicants have not established that "d-HDDR" powders are in fact different from Kanekiyo '776 and Kaneko '809's powder nor have applicants established that the use of "h-HDDR" powders to make the claimed bonded magnets results in magnets that are in fact different from magnets made from non-h-HDDR powders such as is taught by Kanekiyo '776 and Kaneko '809.

Applicants, quoting MPEP 2113, argue that the method of production cannot be disregarded if that method provides a distinct structure. The Examiner is not persuaded in that, for the reasons set forth above under this under this heading, applicants have not established that the method of preparation recited in the claims, in fact, provides a distinct structure or product.

Applicants' argument that "the coating of the surfactant doesn't directly aim to prevent oxidation of the magnet powder is not persuasive". The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicants argue that the aspect ratio taught by Kanekiyo '776 is the ratio of large to small diameter, which is the reverse of the aspect ratio, recited in the instant claims, which is small diameter to large diameter. The Examiner is not persuaded. Applicants have not explained what the basis is for this statement, that is, how applicants came to this conclusion. Further, it is pointed out that the instant claims recite "an average

aspect ratio of 2 or less" which encompasses aspect ratios of greater than 1 to 2. An aspect ratio of **small diameter to large diameter**, which, applicants' have stated is the aspect ratio of the claims, cannot have a value of greater than 1. Finally, the instantly claimed aspect ratio of less than 2 overlaps Kanekiyo '776's aspect ratio of 0.4 to 1.0 (column 4, lines 30 to 35).

Applicants argument that Kanekiyo '776's powder diameter of 10 to 70 microns is remarkably different from the powder size of 1 to 10 microns recited in the instant claims is not persuasive. These powder sizes overlap at 10 microns. Further, even if applicants were to amend the claims so that the powder grain size does not overlap applicants have not demonstrated that the instantly claimed magnet would actually be any different.

7. Applicants' argument that Satou's purpose is different than the applicants' purpose is not persuasive. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In response to applicant's arguments against Satou individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

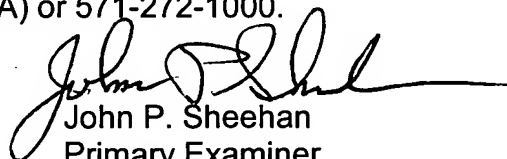
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John P. Sheehan  
Primary Examiner  
Art Unit 1742

jps